

NEW NORTH AMERICAN SPECIES OF ELAPHIDIONINE
CERAMBYCIDAE

(Coleoptera)

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The following new species of *Elaphidionini* are described to make the names available for other studies. This work was performed during the course of a National-Science-Foundation-sponsored study on North American Cerambycidae (Grant no. G-9899). The author is grateful to E. G. Linsley for the use of his unpublished manuscript on the tribe and for his helpful advice. Material was borrowed for study from the following: M. A. Cazier, Southwestern Research Station of the American Museum of Natural History; J. D. Lattin, Oregon State University; H. B. Leech, California Academy of Sciences; A. T. McClay, University of California, Davis; F. S. Truxal, Los Angeles County Museum; and F. G. Werner, University of Arizona.

Aneflomorpha minuta Chemsak, new species

Male: Form small, narrow, elongate; color piceous to reddish brown; pubescence grayish, short, sparse, depressed and suberect. *Head* coarsely, closely punctate; sparsely pubescent; impression between antennal tubercles fairly broad, deep; palpi unequal, last segment scarcely expanded; antennae usually extending about two segments beyond elytral apices, segments three to five spinose at apex, spine of third segment long, prominent, spines of segments four and five short, segments three to nine distinctly carinate dorsally, basal segments densely, coarsely punctate, shining, sparsely pubescent except for long erect internal cilia, distal segments not densely clothed with very short pubescence; third segment longer than fourth, slightly longer than fifth, eleventh segment appendiculate. *Pronotum* distinctly longer than broad, sides impressed basally; surface densely, closely, but separately punctured, punctures not confluent or rugose appearing, smaller than punctures on elytral base, disk usually with a distinct glabrous callus behind middle; pubescence sparse, depressed and suberect, not at all obscuring surface; prosternum not impressed, evenly concave, densely, coarsely punctate, rather sparsely pubescent, intercoxal process broadly expanded at apex, coxal cavities closed or only slightly open behind; meso- and metasternum densely, shallowly punctate, rather sparsely pubescent. *Elytra* well over 3.5 times longer than broad; surface coarsely, densely punctate, punctures separated, larger than discal pronotal ones, becoming finer apically, pubescence sparse, depressed, with few longer erect hairs interspersed, especially at base; apices truncate to emarginate-truncate, angles often dentiform. *Legs* short, slender, rather sparsely pubescent, femora coarsely, shallowly punctate, tibiae carinate. *Abdomen* finely, shallowly, densely, punctate, moderately clothed with short appressed pubescence with few longer

erect hairs interspersed; apex of fifth sternite subtruncate. Length, 8-11 mm.

Female: Form more robust; antennae extending almost to elytral apices; apex of fifth abdominal sternite rounded, slightly emarginate medially. Length, 10-13 mm.

Holotype male, BROWNS CANYON, BABOQUIVARI MTS. ARIZONA, 3800 ft., VII-28-49 (F. Werner, W. Nutting); allotype female, Browns Canyon, VII-18-49, at light (F. Werner); paratypes as follows: 5 ♂♂, Browns Canyon, VII-18-49, at light (F. Werner); 11 ♂♂, Browns Canyon, 3800 ft., VII-28-49 (F. Werner, W. Nutting); 3 ♂♂, Browns Canyon, VIII-4-61 (F. Werner, W. Nutting); 1 ♂, Browns Canyon, VII-29-52 (H. B. Leech, J. W. Green); 3 ♂♂, 2 ♀♀, Baboquivari Canyon, VII-25-52 (H. B. Leech, J. W. Green); 5 ♂♂, Forestry Cabin, Baboquivari Mts., Pima County, Arizona, 3500 ft., VII-22-51 (W. S. Creighton); 2 ♂♂, 1 ♀, Sabino Canyon, Santa Catalina Mts., Arizona, 5000 ft., VIII-6-48 (G. E. Ball); 2 ♂♂, Sabino Canyon, VIII-8-55 (F. Werner, G. D. Butler); 1 ♂, 1 ♀, Tucson, Pima County, Arizona, VII-18-53 (G. M. Bradt); 2 ♂♂, Tucson, 2500-2700 ft., VII-11-49, VII-10-50 (G. M. Bradt); 16 ♂♂, 3 ♀♀, Tucson, VIII-26-35, VIII-5-37 (Bryant); 1 ♂, Tucson, VII-17-34 (E. D. Ball); 1 ♂, Tucson, VII-13-57 (C. W. O'Brien); 2 ♂♂, Baboquivari Canyon, W. slope, Baboquivari Mts., Arizona, VII-17-49 (F. Werner, W. Nutting); 1 ♂, Continental, Pima County, Arizona, VII-29-48 (G. E. Ball); 1 ♂, 10 miles E. Continental, VII-18-61 (F. Werner, W. Nutting); 1 ♂ "Santa Kits Mts.", Arizona, VII-12-50 (R. H. and L. D. Beamer); 1 ♂, Tucson Mts., Desert Museum, Arizona, VII-19-55 (G. Butler, F. Werner); 2 ♂♂, Picture Rock Pass, Tucson Mts., Arizona, VII-25-61 (F. Werner, W. Nutting); 1 ♂ Madera Canyon, Santa Rita Mts., Arizona, VIII-4-47 (L. Martin); additional specimens not designated as paratypes include; 1 ♂, Calabasas Canyon, W. of Nogales, Arizona, VII-28-48 (F. Werner, W. Nutting); 1 ♀, Huachuca Mts., Arizona; 1 ♂, Cochise Stronghold, Dragoon Mts., Arizona, VII-16-58 (C. W. O'Brien); 1 ♂, Santa Rita Mts., Arizona, VII-24-47 (P. A. Readio).

Types are deposited in the California Academy of Sciences. Paratypes are in the collections of the following institutions: University of Arizona, American Museum of Natural History, University of Kansas, Los Angeles County Museum, California Insect Survey, and California Academy of Sciences.

A. minuta is characterized by its piceous color, small, slender

form, sparse, depressed pubescence, and the distinctively punctate, non-rugose appearing pronotal disk.

Adults are attracted to both white and ultraviolet light. No definite host association is indicated in the type series but a number of specimens bear the names "sycamore-oak-mesquite" on their labels. This would suggest that these plants were the dominant types in the area of collection, and one of these is the probable host of *A. minuta*.

Aneflomorpha linsleyae Chemsak, new species

Male: Form elongate, subparallel; color testaceous, pubescence short, golden, suberect, not depressed. *Head* densely, coarsely punctate, sparsely pubescent; impression between antennal tubercles deep; palpi unequal, last segment not broadly expanded; antennae extending less than two segments beyond elytral apices, segments three to six spined at apex, seventh with very small tooth, spine of third segment long, blunt and recurved, spines of following segments gradually decreasing in length, segments three to eight distinctly carinate dorsally, carina of ninth segment faint, basal segments shining, short pubescence sparse, long erect hairs numerous internally, distal segments rather sparsely clothed with very short golden pubescence, third segment longer than fourth, subequal to fifth, fourth subequal to sixth, eleventh segment curved, scarcely appendiculate. *Pronotum* slightly longer than broad, sides impressed apically, medially, and basally, giving a sinuate appearance; surface coarsely, densely, separately punctate, punctures subequal in diameter to basal elytral ones, not rugose appearing, impunctate. discal callus present behind middle; pubescence dense, fine, erect and suberect, not depressed, few long erect hairs present, surface not obscured; prosternum shallowly impressed, densely, coarsely punctate at basal one-half, pubescence moderate, fine, intercoxal process broadly expanded at apex, coxal cavities distinctly open behind by much less than width of apex of prosternal process; meso- and metasternum densely, shallowly punctate, pubescence moderately dense, mostly suberect. *Elytra* less than 3.5 times longer than broad; surface coarsely, densely, closely but separately punctate, punctures becoming finer apically, pubescence moderately dense, short, erect, not depressed, hairs mostly subequal in length throughout; apices emarginate, internal angle slightly dentate. *Legs* slender, sparsely pubescent, femora very shallowly punctate, tibiae carinate. *Abdomen* almost impunctate, sparsely pubescent; apex of fifth sternite shallowly emarginate-truncate. Length, 11 mm.

Female: Form more robust; antennae not extending beyond elytral apices; apex of fifth abdominal sternite broadly rounded. Length, 14 mm.

Holotype male, SOUTHWESTERN RESEARCH STATION OF THE AMERICAN MUSEUM OF NATURAL HISTORY, 5 MILES W. PORTAL, COCHISE COUNTY, ARIZONA, VII-25-60, at light (Juanita M. Linsley); allotype female, same locality, VIII-4-59 (E. G. Linsley). Types are deposited in the California Academy of Sciences.

This species is quite striking in appearance and differs from all other members of the genus by its short, uniform, suberect, golden pubescence. No depressed hairs are present. The punctuation of the pronotum and elytra are also distinctive.

I take pleasure in naming this species in honor of Mrs. Juanita M. Linsley who collected the type and has assisted in numerous field collections of Cerambycidae.

***Aneflomorpha weneri* Chemsak, new species**

Male: Form small to moderate sized, rather robust; color reddish brown with paler elytra; pubescence pale, erect and suberect, not depressed. *Head* densely, rather finely punctate, sparsely pubescent; interantennal depression deep; palpi unequal in length, last segment scarcely expanded; antennae extending slightly more than one segment beyond elytral apices, segment three with moderate spine which is about as long as second segment, segment four with minute dentule, remaining segments not toothed or spined, segments three to six vaguely, not prominently carinate dorsally, segments from third densely clothed with very short, appressed, golden pubescence, third to sixth with numerous long, erect hairs, third segment slightly longer than fourth, subequal to fifth, eleventh segment scarcely appendiculate. *Pronotum* distinctly longer than broad, sides slightly impressed apically and basally; surface densely, closely but not rugosely punctate, punctures larger than those on base of elytra, disk with distinct elongate, glabrous callus, two shallow impressions present at middle, one on each side of callus, pubescence sparse, fine, erect and suberect, not at all obscuring surface; prosternum impressed, basal half transversely rugose, pubescence sparse; intercoxal process broadly expanded at apex, coxal cavities slightly open behind; meso- and metasternum moderately densely punctate, sparsely clothed with subdepressed pubescence. *Elytra* about 3 times longer than broad; densely, moderately coarsely punctate, punctures well separated, becoming finer apically, pubescence moderately dense, fine, suberect and erect, not depressed nor obscuring surface; apices subtruncate, outer angles not produced, inner angle dentate. *Legs* long, rather sparsely pubescent, femora finely, densely punctate, tibiae carinate. *Abdomen* finely, densely punctate, moderately densely clothed with subdepressed hairs; apex of fifth sternite emarginate-truncate. Length, 10-16 mm.

Holotype male, BIG BEND NATIONAL PARK, CHISOS MTS., TEXAS, VII-9-48 (F. Werner, W. Nutting); paratypes as follow: 1 ♂, Big Bend National Park, VII-9-48 (F. Werner, W. Nutting); 1 ♂, Big Bend National Park, 5400 ft., VIII-24-54 (R. M. Bohart); 1 ♂, Juniper Canyon, Chisos Mts., Texas, VII-17-28 (F. M. Gaige); 1 ♂, Davis Mts., Texas, VI-28-46.

The type is deposited in the California Academy of Sciences. Paratypes are in the collections of the University of Arizona, the University of California, Davis, and the California Insect Survey.

This species is closely related to *A. seminuda* Casey but differs by the short spine of the third antennal segment, absence of a spine on segment five, and carinate antennae. The characters enumerated in the above description should readily separate *weneri* from other *Aneflomorpha*.

A. weneri is named in honor of F. Werner of the University of Arizona.

***Aneflomorpha cazieri* Chemsak, new species**

Male: Form small, slender, elongate; color dark brownish testaceous to reddish brown; pubescence dense, appressed and short, long and suberect. *Head* densely, confluent punctate, moderately densely clothed with fine depressed and suberect pubescence; interantennal impression narrow, fairly deep; antennal tubercles prominent, apices produced; palpi unequal, last segment scarcely produced; antennae thin, extending 2 or 3 segments beyond elytral apices, third segment with very long, blunt spine at apex, spine of fourth segment short, fifth segment with minute tooth, remaining segments unarmed, segments not carinate dorsally, basal segments shining, long flying hairs abundant, distal segments moderately densely clothed with very short pubescence, third segment distinctly longer than fourth, fourth subequal to fifth, eleventh segment curved, slightly appendiculate. *Pronotum* distinctly longer than broad, sides subparallel, slightly inflated a little behind middle; disk densely, moderately coarsely, contiguously, but not rugosely, punctate except for callus slightly behind middle, punctures smaller than basal elytral ones; pubescence moderately dense, subdepressed and suberect, not obscuring surface; prosternum scarcely impressed, densely, coarsely punctate before coxae, intercoxal process broadly expanded at apex, coxal cavities slightly open behind; meso- and metasternum densely, shallowly punctate, densely pubescent. *Elytra* about four times longer than broad; basal punctures very coarse, subcontiguous, dense, becoming finer and shallower apically; pubescence moderately dense, subdepressed with longer suberect hairs numerous basally, pubescence not obscuring surface; apices truncate to emarginate, angles usually dentate. *Legs* slender, clothed with numerous, long-flying hairs, femora sparsely, shallowly punctate, tibiae carinate. *Abdomen* finely, moderately densely, shallowly punctate, densely clothed with depressed and suberect pubescence; apex of fifth sternite broadly truncate. Length, 8-13 mm.

Female: Antennae about as long as body; apex of fifth abdominal sternite broadly rounded. Length, 9-13 mm.

Holotype male, SOUTHWESTERN RESEARCH STATION OF THE AMERICAN MUSEUM OF NATURAL HISTORY, 5 MILES W. PORTAL, COCHISE COUNTY, ARIZONA, VIII-1-59 (E. G. Linsley); allotype female, same locality, VIII-2-58 (R. H. James); paratypes as follows: 11 ♂♂, S. W. Research Station, VII-17-60, at light (J. M. Linsley), VII-20-60, at light (J. M. Linsley), VII-22-56 (C. and M. Cazier), VII-26-61, "malt-water bait" (L. J. Bottimer), VIII-1-59 (E. G. Linsley), VIII-2-61 (J. F. Lawrence, J. M. Linsley),

VIII-5-58 (R. O. Schuster), VIII-19-58 (E. G. Linsley); 1 ♂ Cave Creek Canyon, Chiricahua Mts., Arizona, VII-5-58 (J. M. and S. N. Burns); 19 ♂ ♂, 7 ♀ ♀, Madera Canyon, Santa Rita Mts., Arizona, VII-14-59 (Werner, Radford, Patterson, Samuelson), VII-15-47 (L. Martin), VII-16-47, VII-18-47, VII-19/25-57 (R. L. Westcott), VII-21-47 (L. Martin), VII-28-47 (H. Wilson), VII-28-60 (P. H. Johnson), VII-30-47, VII-31-47 (L. Martin), VII-31-48 (F. Werner, W. Nutting), VIII-2-47, VIII-4-47 (L. Martin), VIII-7-47 (L. Martin), VIII-7/10-47 (L. Martin), VIII-9-61 (F. Werner, W. Nutting), VIII-13-52 (M. Cazier, R. Schrammel, C. and P. Vaurie); 5 ♂ ♂, 2 ♀ ♀, Canelo, Arizona, VII-31 and VIII-3-56 and VII-20-58 (G. D. Butler); 4 ♂ ♂, Cochise Stronghold, Dragoon Mts., Arizona, VII-7-58, "beating *Quercus*" (C. W. O'Brien), VII-13-58 (C. W. O'Brien), VII-21-61 (F. Werner, W. Nutting); 2 ♂ ♂, Wood Canyon, Bisbee, Arizona, VII-3-61 (P. H. Johnson); 2 ♂ ♂, Bear Canyon, Hk. Hwy. mi. 12, Santa Catalina Mts., Arizona, VII-14-61 (F. Werner, W. Nutting); 2 ♂ ♂, 1 ♀, Noon Creek, Mt. Graham, Arizona, VII-28-54 (F. Werner), VIII-4-58 (C. W. O'Brien); 2 ♂ ♂, Don Luis, Cochise County, Arizona, VIII-1-52 (M. Cazier, R. Schrammel); 1 ♂, Calabazas Canyon, W. of Nogales, Arizona, VII-28-48 (F. Werner, W. Nutting); 1 ♂ Peña Blanca, 10 miles W. Nogales, VIII-1-61 (F. Werner, W. Nutting); 1 ♂, W. sl. Patagonia Mts., Arizona, 5200 ft., VII-29-48 (F. Werner, W. Nutting); 1 ♂, 5 miles SE Apache, Cochise County, Arizona, VIII-11-58 (J. M. Marston); 1 ♂, Carr Canyon, Huachuca Mts., Arizona, 5400 ft., VIII-8-52 (H. B. Leech, J. W. Green); 1 ♂, Browns Canyon, Baboquivari Mts., Pima County, Arizona, VII-29-52 (H. B. Leech, J. W. Green); 1 ♂, Carr Canyon, Huachuca Mts., Arizona, VIII-1-52 (M. Cazier, R. Schrammel); 1 ♂ Bear Valley, S. sl. Tumacacori Mts., Arizona, 4000 ft., VII-20-49 (F. Werner, W. Nutting); 1 ♂, Pioneer Pass, Pinal Mts., Arizona, 5000 ft., VIII-7-48 (F. Werner, W. Nutting); 2 ♂ ♂, Double Adobe Ranch, Animas Mts., Hidalgo County, New Mexico, 5500 ft., VIII-15-52 (H. B. Leech, J. W. Green).

The types are deposited in the California Academy of Sciences. Paratypes are in the collections of the University of Arizona, the Los Angeles County Museum, the California Academy of Sciences, the University of California, Davis, the American Museum of Natural History, and the California Insect Survey.

A. cazieri can be readily differentiated from the other members of the genus by its narrow, elongate form. The elongate, blunt spine at the apex of the third antennal segment separates this species from the bulk of other *Aneflomorpha*. It differs from the other species possessing such a spine as follows. The elongate antennae will separate *A. delongi* (Champlain and Knull) from *cazieri* while the coarsely punctate elytral base with the punctures larger than those of the pronotum differentiate it from *A. aculeata* (LeConte). *A. tenuis* (LeConte) is much stouter, piceous, and with heavier, suberect pubescence.

While most of the type series were collected at light, one specimen was obtained while beating *Quercus* and others taken in an "oak-pine-juniper zone" and "pine zone with *Robinia*". This may indicate that this species utilizes one or more of the deciduous trees within the area as its host.

This species is named for M. A. Cazier of the Southwestern Research Station.

Neaneflus brevispinus Chemsak, new species

Male: Form moderate sized, fairly stout; color piceous; pubescence dense, depressed and suberect. *Head* densely, rugosely punctate, moderately densely clothed with depressed hairs; interantennal depression shallow; palpi not very unequal in length, last segment not broadly expanded; antennae only slightly extending beyond elytral apices, spine of third segment very short, fourth segment at most with very small tooth at apex, segments three to nine carinate dorsally, carinae not prominent, segments from third densely clothed with very short pubescence, suberect long hairs sparse, outer segments expanded apically, flattened, segments three to nine subequal in length, ten and eleven shorter. *Pronotum* about as long as broad, sides broadly rounded; surface densely, confluent, moderately coarsely punctate, punctures subequal to basal elytral ones in diameter, disk usually with a linear callus behind middle; pubescence dense, depressed, suberect hairs very sparse; prosternum shallowly impressed, densely punctate before coxae, transversely rugose at apical half, pubescence moderately dense, short, depressed, intercoxal process only slightly expanded apically, coxal cavities wide open behind; meso- and metasternum finely, densely punctate, moderately densely pubescent. *Elytra* slightly less than three times longer than broad; surface densely, moderately coarsely punctate, punctures well separated, becoming finer apically; pubescence dense, appressed, partially obscuring surface, longer suberect hairs sparsely interspersed; apices with outer angle rounded, sutural angle dentiform. *Legs* slender, densely pubescent, femora densely, moderately coarsely punctate, tibiae carinate. *Abdomen* finely, shallowly punctate, densely pubescent; apex of fifth sternite broadly emarginate-truncate. Length, 11-16 mm.

Female: Antennae shorter than body; apex of fifth abdominal sternite broadly rounded. Length, 11-14 mm.

Holotype male, allotype female and 19 paratypes (17 ♂♂, 2 ♀♀) PYRAMID PEAK, DONA ANA COUNTY, NEW MEXICO, VII-18-30 (F. R. Fosberg); additional paratypes as follows: 4 ♂♂, Mesquite, New Mexico, VIII-1-30, VIII-3-30, VIII-4-30, VII-5-30; 1 ♀, Jemez Springs, Sandoval County, New Mexico, VII-10-54 (Cazier and Gertsch); 1 ♂, Globe, Arizona (Duncan); 2 ♂♂, Parker Ranch, Sixshooter Canyon, Globe, Gila County, Arizona, VIII-22-52 (H. B. Leech, J. W. Green); 1 ♂, Saginaw Canyon, New York Mts., San Bernardino County, California, IX-8-50; 1 ♂, Tornillo Flat, Chisos Mts., Texas, VII-13-48 (F. Werner, W. Nutting); 1 ♂, Sheffield, Pecos County, Texas, VI-30-48 (C. and P. Vaurie); 2 ♂♂, 15 Km. E. Sombrerete, Zacatecas, Mexico, VII-28/31-51 (P. D. Hurd).

The primary types are deposited in the Los Angeles County Museum. Paratypes are in collections of the Los Angeles County Museum, the University of Arizona, the California Insect Survey, the American Museum of Natural History, and the California Academy of Sciences.

This species is very suggestive of *Micraneflus imbellis* (Casey) but can be readily differentiated by the spined, carinate antennae, distinctly carinate tibiae, subequal length of the antennal segments, and piceous color. The much smaller size, shorter spine of the third antennal segment, vaguely carinate outer antennal segments, and shorter sutural spine of the elytra separate *N. brevispinus* from *N. fuchsii* (Wickham).

Anelaphus dentatus Chemsak, new species

Female: Form robust, subcylindrical; integument dark reddish brown; pubescence short, suberect with irregular patches of dense, white, appressed pubescence scattered over elytra. *Head* coarsely, confluent punctate between eyes, more finely on vertex; pubescence sparse, fine, subdepressed, antennal tubercles with small tufts of depressed yellowish hairs; antennae shorter than body, not carinate dorsally, segments three to nine spinose internally, segments from five to ten with small teeth externally, segments expanded, flattened, basal segments sparsely clothed with fine subdepressed hairs, longer suberect hairs sparse, distal segments densely clothed with very fine, short, golden pubescence, segments one to four densely, coarsely punctate. *Pronotum* slightly longer than broad, sides broadly rounded; disk with an irregular glabrous callus behind middle, punctation coarse, dense, confluent, giving a somewhat rugose appearance; pubescence fine, moderately dense, subdepressed, a tuft of dense, pale, depressed hairs

present on each side a little before middle; prosternum transversely impressed, coarsely, rugosely punctate before coxae, pubescence moderately dense, intercoxal process expanded at apex, coxal cavities open behind; meso- and metasternum densely, shallowly punctate, moderately densely pubescent; scutellum clothed with dense appressed pubescence except for longitudinal median line. *Elytra* less than three times longer than broad; basal punctures moderately coarse, well-separated, smaller than pronotal ones; patches of dense, whitish, depressed pubescence irregularly interspersed over surface, short, golden, suberect hairs sparse, long hairs absent; apices subtruncate, inner angle with short spine. *Legs* slender, moderately densely pubescent; middle and hind femora arcuate, densely, rather finely punctate; tibiae carinate. *Abdomen* finely, sparsely punctate, moderately densely pubescent; apex of fifth sternite rounded. Length, 16-18 mm.

Holotype female and one paratype (female), COCHISE STRONGHOLD, DRAGON MTS., ARIZONA, VII-10-55 (G. D. Butler and F. G. Werner).

The type is deposited in the California Academy of Sciences. The paratype is in the collection of the University of Arizona.

This species superficially resembles *A. debilis* (Le Conte) but can be readily separated by the irregular discal callus of the pronotum, reduced pubescence, and coarser pronotal punctures.

The shape of the pronotal callus, coarse punctation, short suberect hairs interspersed among the irregular patches of dense depressed hairs, and apical spines of segments three to nine characterize *A. dentatus* and will separate it from other *Anelaphus*.

Peranoplium piceum Chemsak, new species

Male: Form subparallel, moderately robust; integument piceous, antennae and tarsi lighter; pubescence dense, whitish, subdepressed, with finer suberect, golden hairs interspersed. *Head* coarsely, densely, confluent punctate between eyes and on front, more finely on vertex; pubescence moderately dense, subdepressed; antennae shorter than body, third segment with very small spine, fourth, at most with minute tooth, third segment subequal in length to fourth, fifth a little longer than third, basal segments rather densely clothed with pale subdepressed hairs, distal segments densely clothed with very fine, short pubescence, eleventh segment appendiculate. *Pronotum* as wide as or slightly wider than long; sides feebly rounded, surface coarsely, contiguously, shallowly, alveolately punctate, moderately densely clothed with subdepressed hairs, longer, finer, erect hairs sparse at sides; prosternum transversely impressed, coarsely punctate, rather sparsely pubescent, front coxal cavities closed behind; meso- and metasternum densely, coarsely punctate, rather sparsely pubescent; scutellum densely clothed with white recumbent pubescence. *Elytra* less than three times longer than broad; basal punctures moderately coarse, separated, becoming coarser at basal one third then finer apically; pale pubescence dense, subdepressed with finer suberect, golden hairs interspersed, indistinct costae

forming vague longitudinal stripes; apices rounded. *Legs* densely pubescent, densely, moderately coarsely punctate; tibiae carinate. *Abdomen* finely, shallowly punctate, moderately densely pubescent; apex of fifth sternite truncate. Length, 11-12 mm.

Female: Antennae attaining second abdominal segment; apex of fifth abdominal sternite rounded at apex. Length, 9-12 mm.

Holotype male, TUCSON, ARIZONA, May, 1961; (E. Madden); allotype female, Globe, Arizona, VI-19-57 (G. Butler, F. Werner); paratypes as follows: 1 ♂, Tucson, IV-10-57 (Flake); 1 ♂, Tucson, V-10-58 (E. B. Gould); 1 ♂, Pearce, Arizona, IV-23-57, "mesquite" (G. Butler, F. Werner); 1 ♂, San Bernardino Ranch, 13 mi. E. Douglas, Cochise County, Arizona, VI-12-59 (L. A. Stange); 1 ♂, Sixshooter Canyon, Pinal Mts., Arizona, VII-4-40 (J. J. duBois); 1 ♂, Santa Rita Range Res., Pima County, Arizona, IV-29-58, "swept from mesquite" (G. D. Butler); 1 ♀ Browns Canyon, Baboquivari Mts., Arizona, VI-17-57.

The types are deposited in the California Academy of Sciences. Paratypes are in the collections of the University of Arizona and California Insect Survey.

This species differs from *P. simile* (Schaeffer) by its piceous color, thicker subdepressed pubescence, lack of condensed pubescent white patches on the elytra, and subequal third and fourth antennal segments. The pubescent white fasciae and partially open front coxal cavities separate *subdepressum* (Schaeffer) from *piceum* while the small size, pale color, and reduced antennal spines distinguish *tuckeri* (Casey). *P. hoferi* (Knull) differs by its smaller size, paler color, and non-impressed prosternum.

BOOK REVIEW

A MANUAL OF COMMON BEETLES OF EASTERN NORTH AMERICA.

By Elizabeth S. and Lawrence S. Dillon. Row, Peterson and Company; Evanston, Illinois and Elmsford, New York. Pp. viii + 884, with 544 text figs., pls. I-LXXXI [+ XXVA and XXIXA; pls. I & II are repeated at the back of the book], color pls. A-D. January, 1961. Price \$9.25.

The Dillons have made a fortunate choice of publisher. Their book has a good solid feeling in the hand, is strongly bound, printed on a suitable paper, and shows the care given to page make-up. There is clarity at a glance. The identification keys are nearly always complete on one page or on two facing pages. There are remarkably few typographical errors and the price is surprisingly low. It is a pleasure to find this book dedicated to Henry Dietrich of Cornell University.

The text is much harder to assess. No one can fail to appreciate the years of work it took to produce the 544 text figures and the 1201 others com-